



A Review on Pharmaceutical Marketing Strategies from Medical Representatives in Doctors' Prescribing Decisions

Amrita Acharya, Abu Bakar Abdul Hamid

Business Administration, Infrastructure University of Kuala Lumpur

DOI: https://dx.doi.org/10.47772/IJRISS.2024.8120099

Received: 29 November 2024; Accepted: 04 December 2024; Published: 04 January 2025

ABSTRACT

The pharmaceutical industry is a critical driver of improved healthcare outcomes, significantly enhancing quality of life. Its growth has been fueled by increasing demands driven by the rising prevalence of chronic and age-related diseases and shifts in medical practices. This expansion has necessitated innovative and often complex marketing strategies to influence prescribing behaviour among doctors. The pharmaceutical industry is heavily regulated, particularly in its marketing efforts, where direct consumer advertising is prohibited. Instead, pharmaceutical companies direct their marketing strategies towards doctors, who play a pivotal role as decision-makers in determining which drugs patients receive. These marketing efforts are designed to foster relationships, disseminate product information, and ultimately encourage the adoption of specific drugs. These various marketing activities are directed towards doctors beginning as early as medical school and continuing throughout their careers. Such strategies are designed to build relationships and shape doctors' prescribing behaviour, with the ultimate aim of increasing sales for pharmaceutical companies. However, the influence of these marketing activities has raised concerns regarding the rationality of prescribing, the quality of prescribed medicines, and potential conflicts of interest. The balance between marketing efforts to boost sales and ensuring the responsible prescription of cost-effective medicines remains a challenge. In a country like Nepal, there are specific concerns regarding the quality of locally produced pharmaceuticals and the preference for multinational brands. This study aims to explore the various marketing strategies employed by pharmaceutical companies between 2019 and 2023, focusing on their impact on doctors' prescribing decisions. Key promotional tactics include the provision of free drug samples, sponsorships for medical education, and personal interactions with medical representatives (MRs). The findings indicate that promotional efforts, particularly those involving personal engagement by MRs, significantly shape doctors' drug prescriptions. However, this influence also raises ethical questions, with concerns over the potential for irrational prescribing and the role of gifts and incentives in shaping medical decisions.

Keywords: Pharmaceutical Marketing, Medical Representative, Doctor's Decision, Prescribing Behavior, Ethical concern

INTRODUCTION

The pharmaceutical industry is subject to strict regulations. This industry is distinct from others since pharmaceutical companies are unable to advertise their drugs through print or electronic media [1]. Pharmaceutical companies target doctors with their marketing activities. Doctors are the gatekeepers or decision-makers who decide which drug a patient should purchase [2]. Moreover, doctors have an impact on the purchasing decisions of their patients. Interactions between pharmaceutical companies and doctors typically begin during the first year of medical school and grow throughout their professional careers [35]. A prescription is the doctor's final choice among a variety of options [1]. Thus, doctors become the centre of all the marketing activities done by pharmaceutical companies. A doctor's prescription of the drug may be influenced by the extent of marketing efforts done by pharmaceutical companies [9]. In pharmaceutical marketing, strategies are designed for the doctors (customers) and not patients (consumers) [2]. Therefore,

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue XII December 2024



most pharmaceutical companies devote significant time and resources to marketing strategies designed to persuade doctors to prescribe their products [18]. Moreover, pharmaceutical companies allocate a substantial portion of their marketing budgets to influence doctors' prescribing behaviour, aiming to boost sales of their medicines. Interestingly, the expenses on marketing activities by these companies are more than double what they invest in developing new drugs [19]. Consequently, they focus heavily on identifying and employing the most effective promotional tools to maximize sales and revenue [13]. The relationship between doctors and pharmaceutical companies represents a conflict of interest a clash between doctor's professional responsibilities and personal financial interests [36].

Moreover, according to [10], growing competition has led pharmaceutical companies to incur higher costs due to the need for more medical representatives for doctor visits, with 30% of their marketing content remaining unused.

Misleading information from pharmaceutical promotions is one of the main factors causing the inappropriate use of medicines. [25]. Moreover, the knowledge of the doctor about drugs has been shown to correlate more with pharmaceutical marketing materials than with the medical literature [35]. Promotion strategies of pharmaceutical companies often cause problems like irrational prescribing, reduced trust between patients and doctors, and higher medicine costs [30]. A study reported that forty per cent of prescriptions in seven hospitals in Lebanon contained errors, with nine per cent involving unnecessary medications [22].

This may be due to promotional strategies of pharmaceutical companies targeting physicians to increase the acceptance of their products. Moreover, low-quality drugs could lead to drug resistance, endanger patients' lives, and create an economic and social burden on society [32].

Reference [20] asserted that the information provided by pharmaceutical companies during drug advertisements does not follow the recommended criteria and promotes irrational prescribing behaviour. Pharmaceutical companies' promotion strategies often cause problems like irrational prescribing, reduced trust between patients and doctors, and higher medicine costs [5]. The question of whether marketing or innovation is the primary force behind the pharmaceutical sector has been at the centre of the discussion [30]. However, several factors contribute to the inappropriate use of medicines, including misleading information provided through pharmaceutical promotions [25]. Likewise, moreover, according to reference [1]. The quality of medicine in Nepali pharmaceuticals is of grave concern even though it is certified by WHO GMP. Marketing efforts influence doctor's prescribing behaviour significantly affecting the health outcome. However, in the context of Nepal, brand prescribing has led to a situation where medications are chosen depending on the prescriber's preferred brand rather than quality [37]. Moreover, according to reference [12] quality of medicine has been a major concern in the context of Nepal. The author further adds that for the same reason, doctors tend to prefer multinational over domestic brands. The increasing prevalence of pharmaceutical marketing by pharmaceutical manufacturers may undermine trust in doctors and healthcare institutions [39]. However, the study by [36] challenges these findings, concluding that there is no significant relationship between awareness of doctor-pharmaceutical financial ties and trust in physicians.

Not all promotion leads to the misuse of medicines. There is a tension between manufacturers' efforts to boost sales and the need to encourage the careful use of the most cost-effective options [25]. According to [34] doctor's decision to use a particular drug is largely rational, thus, marketing communications should focus on persuading the doctor of the medicine's benefits and superiority over existing treatment options. Physicians consider several factors when choosing a brand for medication [5]. Likewise, the quality of medicines and supporting evidence regarding the efficacy of the drug were the important strategies used by pharmaceutical companies that influenced doctor's prescribing behaviour [18]. Physicians consider several factors [5]. Therefore, gaining an understanding of how doctors make decisions is essential to enhancing health and lowering medical expenses [11]. Therefore, the objective of the study is to investigate the various marketing strategies employed by pharmaceutical companies between 2019 and 2023 that influenced doctors' prescribing behaviour and analyze their impact on prescription decisions, healthcare outcomes, and the trust dynamics between doctors, patients, and pharmaceutical companies. The study will focus on the role of medical

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue XII December 2024



representatives as a key promotional strategy, examining the effectiveness of promotional tools, ethical considerations, and the influence of drug quality, promotional materials, and competitive market pressures in shaping physicians' decisions. Additionally, it aims to explore how these factors contribute to the rational or irrational use of medicines within healthcare systems across different regions and settings, providing actionable insights into optimizing ethical and effective pharmaceutical marketing practices.

Method

This study adopted a descriptive and interpretive approach, utilizing recent literature sourced from electronic databases including Google Scholar, PubMed, Emerald Insight, Mendeley, and Nepal Journals Online, covering the period from 2019 to 2023. The keywords used for article searches included Pharmaceutical Marketing, Medical Representative, Doctor's Decision, Prescribing Behavior, and Ethical concern.

Selection Criteria

Titles, abstracts, and research objectives were initially reviewed. Articles were included if they were published between 2019 and 2023, written in English, fully accessible, focused on factors influencing prescribing behaviour, and listed these factors in the findings.

LITERATURE REVIEW

Pharmaceutical Marketing Efforts and Doctor's Decision to Prescribe

With the rise of technology and digital media, the pharmaceutical sector is shifting from traditional methods like in-person meetings and conventions to modern approaches such as e-detailing, virtual conferences, and other digital tools [10]. Pharmaceutical marketing is increasingly shifting towards personalization, using technologies like artificial intelligence (AI) and machine learning to deliver customized content to both healthcare providers and patients. This approach aims to address individual needs, fostering better engagement and improving the effectiveness of marketing efforts. By personalizing communication, companies can ensure their messages are more relevant and impactful, ultimately enhancing their promotional strategies [42]. However, in the modern era, pharmaceutical marketing will not replace medical representatives but rather empower them to perform their roles more effectively, enhancing their productivity and fostering synergistic outcomes [10].

Pharmaceuticals are important for improving quality of life. Their use is increasing due to more cases of agerelated and chronic diseases and changes in medical practices. This growing demand has led to steady growth in global pharmaceutical market revenues [16]. The World Health Organization (WHO) provided its guidance on pharmaceutical marketing ethics in the "Ethical Criteria for Medicinal Drug Promotion", which was adopted in 1988. The World Health Organization (WHO) defines pharmaceutical marketing as: "Any activity undertaken by the manufacturer or distributor of pharmaceuticals to promote the prescription, supply, purchase, and/or use of medicinal drugs. This includes advertising, sponsorship, and any other forms of promotion aimed at healthcare professionals or the public." Likewise, pharmaceutical marketing refers to the strategies that pharmaceutical companies use to promote their products to both healthcare professionals and consumers. Interactions between pharmaceutical companies and prescribers have increased and diversified, but current regulations do not fully address these modern promotional practices [29].

Physicians' prescribing decisions are multifaceted and influenced by a variety of factors. In this study, physicians identified drug-related attributes, including efficacy and safety, as highly significant in their decision-making process when transitioning from prescribing one medication to an alternative [3]. Numerous studies from the past have identified pharmaceutical companies' marketing efforts as one of the most influential factors. [19];[6];[9];[2];[38]. Similarly, a significant determinant of doctors' prescribing behaviour is the influence exerted by pharmaceutical companies [33]. According to the study, a notable rise in drug prescriptions was observed in the months following the marketing activities by pharmaceutical companies.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue XII December 2024



Likewise, the study of [31] demonstrated that sixty-two per cent of doctors acknowledge being influenced by the promotional strategies of pharmaceutical companies. Pharmaceutical companies promote their drugs through various marketing activities like providing free drug samples, offering high-value and low-value gifts, sponsored travel, funding continuous medical education programs, and medical detailing [2]. Moreover, visual aids, leaflets/brochures, and various audio-video resources are some of the ways adopted by pharmaceutical companies to promote their medicines [20]. Pharmaceutical companies typically employ various marketing tools, including product samples, product literature, and product-related giveaways. They promote their products by sharing information and offering gifts or payments to clinicians. Information sharing includes visits by medical representatives, ads in journals, emails, social media, sponsored talks, and training programs. Gifts and payments include free samples, meals, travel costs, conference fees, honoraria, research payments, ghostwritten articles, and support for patient education or clinic staff [29]. They often pay doctors as part of their marketing. These payments can be money for consulting or speaking or gifts like meals. There are concerns that these payments may unfairly affect doctors' decisions [29]. Additionally, Medical Representative (MR) play a crucial role in directly promoting products to prescribers [31]. A study was conducted by reference [2] to identify the impact of social and behavioural theories and doctor's prescription behaviour. A total of 984 responses from doctors were collected from urban centres of Pakistan using a structured questionnaire. The study's findings demonstrated that marketing efforts had a strong positive and significant influence on doctor's decisions to prescribe. The study found that marketing efforts, such as sales promotions and the availability of drug information, were directly associated with doctors' prescribing decisions, while the characteristics of the drugs themselves did not have a significant impact. In the same vein, sponsorships for international conferences, personal tours, and personal gifts are three key promotional tools for encouraging doctors to generate prescriptions [39]. A similar study was conducted by [22] to examine the impact of pharmaceutical companies' marketing efforts on doctor's prescribing behaviour in the Lebanese pharmaceutical market. The study was quantitative, and 282 questionnaires were collected from Lebanese practising physicians from two different hospitals. Non-probability, quota and convenience methods were used for the study. The study considered ten primary promotional methods used by pharmaceutical companies that influenced physicians' prescribing behaviour. According to the study, visits of medical representatives, free drug samples and participation in continuous medical education were the most influential promotional tools used by pharmaceutical companies. This study demonstrated that Lebanese physicians significantly shift their drug prescriptions from one company to another, indicating that their prescribing behaviour is strongly influenced by pharmaceutical marketing strategies.

The pharmaceutical industry employs several strategies like interaction with MR, including funding medical associations, educational programs, research and medical conferences. Furthermore, key opinion leaders are often hired to promote specific products. Such practices may lead to inflated claims about a drug's efficacy and safety, encourage off-label use, lower disease diagnosis thresholds, or spread unverified information about disease prevalence [21]. Likewise, reference [24] conducted a study using 100 self-administered questionnaires from doctors practising in different specialities. The study confirmed that doctors did show interest in promotional activities led by pharmaceutical companies. Approximately seventy-eight per cent of doctors preferred patient-oriented activities, which aim to help patients better understand their disease conditions, while the remaining twenty-two per cent favoured practice-oriented activities, designed to enhance doctors' expertise and improve clinical practice. The study further validated the critical role of customer relationship management, emphasizing the importance of detailing MR, medical camps, and continuous medical education as key factors significantly shaping doctors' prescribing behaviour. A similar, study was carried out by [18] to examine the influence of pharmaceutical marketing mix strategies on physician's prescribing behaviour in hospitals, in Dessie, Ethiopia. A cross-sectional mixed-method study was conducted with 136 physicians working in two public and three private hospitals. A purposive sampling method has been used for the study. The findings of the study revealed that eighty-three per cent of doctors agreed that their prescribing behaviour is influenced by their perception of promotional strategies. Frequency of visits to MR, company-sponsored events, information from the promotional brochures, invitations to visit the pharmaceutical plant, and the country of the manufacturer were among the top five strategies that influenced doctor's prescribing behaviour. In the same vein, the study of [5] concluded that the frequency of visits of

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue XII December 2024



MRs was the top-rated marketing strategy used by pharmaceutical companies followed by personal relationships, quality of medicines, skilful detailing and reputation of the company. Moreover, [22] concluded that doctors consider visits by medical representatives, drug samples, company involvement in continuing medical education conferences, and sponsorship for travel and personal tours as the most influential promotional tools.

Similarly, a study was conducted by [3] to determine the role of pharmaceutical marketing in prescribing decisions in a developing country. The study was quantitative and a structured questionnaire was used to conduct the research with 602 respondents. The study concluded that physicians' exposure to company-direct sources of information is positively and significantly related to their prescribing decisions. Physicians identified drug-related factors or attributes, interactions with medical representatives (MRs) in cases where they received low-value promotional items, and direct information from pharmaceutical companies as highly influential in their decisions to switch from prescribing one medication to another. Additionally, motivational factors were found to have the strongest predictive influence on physicians' prescribing behaviour.

Reference [8] conducted a study to examine the influence of pharmaceutical promotion on prescribers in the private healthcare sector in Jordan. The study was cross-sectional, and quantitative and applied the Eisenberg model of physician decision-making to evaluate factors influencing physicians' prescribing practice. Descriptive statistics and multiple regression methods were used to investigate the factors. The sample size undertaken for the study was 310. The study concluded that years of experience and participation in drug committees were significantly associated with a high impact of marketing activities on physicians' prescribing practices. Likewise, the majority of physicians agreed that pharmaceutical education offers valuable insights into new products. However, sixty-six per cent of doctors felt that lectures sponsored by pharmaceutical companies are often biased in favour of the sponsors' products. Among the various marketing strategies used by pharmaceutical companies to influence physicians' prescribing practices, visits by medical representatives (MRs) were reported by physicians as the most influential tool [6].

1. Medical Representative: A Key Promotional strategy

A medical representative in pharmaceutical marketing is called a medical representative [26]. They are "information providers" [6]. According to reference [10] MRs work as a link between pharmaceutical companies and doctors. They share product information, make sure medicines are available in stores, and encourage doctors to prescribe their products. Their main tasks include getting prescriptions, meeting customer needs, and collecting market information. Likewise, MR is a professional employed by pharmaceutical companies to promote their products to healthcare providers, including doctors, pharmacists, and nurses. They act as intermediaries between the company and healthcare professionals, providing product information, building relationships, and driving sales. MRs often engage in direct meetings, presentations, and follow-ups. This role requires strong communication skills, in-depth product knowledge, and the ability to maintain effective professional relationships (Indeed, 2024). The sales team is organized with MRs at the base, followed by area, regional, and zonal managers, sales managers, and the vice president of sales at the top.

Pharmaceutical companies hire and train medical representatives (MRs) to promote and sell pharmaceutical products. This training typically involves equipping MRs with printed academic literature, drug samples, and promotional gifts to aid in their communication with doctors. These resources are used to provide detailed information about products, influence prescribing practices, and foster relationships with doctors. Medical representatives are important in managing promotional activities in the pharmaceutical industry. Unlike traditional salespeople, they do not directly sell or advertise products to customers [29]. Medical representatives are a very useful link in pharmaceutical marketing [10]. Pharmaceutical businesses commonly employ various marketing and promotional strategies, with one of the most prevalent being the use of MRs to engage with doctors and influence their prescribing behaviour in favour of specific products [38]. Face-to-face visits by MR are the primary promotional method influencing doctors' prescribing decisions, as they help build strong relationships between doctors and representatives [6]. Physicians hold differing views on pharmaceutical promotional strategies. Many regard regular visits from medical representatives as the most

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue XII December 2024



effective promotional approach [29]. Direct communication between doctors and pharmaceutical companies, mediated by MRs, remains a critical and efficient channel for information exchange [27]. MRs were well-trained and encouraged to build personal relationships with doctors through regular interactions [16]. Likewise, pharmaceutical companies provide medical representatives with regular training to keep them updated on products, diseases, and research, ensuring they can effectively support the business [6]. Medical representatives usually promote their products through personal selling, offering free medicine samples, sponsoring national and international conferences, supporting continuous medical education (CME) programs, and providing gifts ranging from low to high value to persuade physicians to prescribe [1]. Frequent visits were found to help doctors develop a positive attitude toward MRs [17]. The study indicated that MRs were trained to make between fewer than 5 to more than 15 visits per day to the doctors. Moreover, according to the study conducted by [3], physicians interact with an average of seven medical representatives per week.

Research was conducted by [39] to study the effectiveness of promotional tools used by medical representatives to generate product prescriptions from doctors in the Pakistani pharmaceutical industry. A sample of 100 medical representatives of the top five national pharmaceutical companies were randomly selected from Karachi to fill out the survey questionnaire. The survey received mixed reactions: fifty-two per cent of MRs believed that regular visits to doctors strongly and positively influence product prescription generation, while forty-eight per cent felt that regular visits were not very helpful in driving prescriptions. Also, according to [7] doctors tend to rely more on information provided by medical representatives, and pharmaceutical-sponsored workshops rather than using other sources like medical journals. This is particularly common in less developed and developing countries, where company representatives are often the primary source of information on new medicines and treatments. Likewise, a cross-sectional and quantitative study was conducted by [6] to study the attitude and acceptability towards medical promotion tools and their influence on physician's prescribing behaviour. According to the study, MRs primarily emphasized the price and brand name of the product and frequently presented accurate information during medical detailing. Moreover, the most common marketing tools offered from medical representatives' drug samples and invitations for lectures accompanied by dinner. Also, [15] explored in their study that doctors obtain information about new drugs and the latest therapies from MR, who provide them with details about recently launched medications. Doctors often rely on this information when making decisions to prescribe these new drugs to their patients.

According to [34] developing a strong field force with comprehensive knowledge is the main factor in persuading a doctor. The author further adds that the objective of marketing communication should be to convince the doctor of the drug's superiority and advantage over the current line of treatment. According to reference [10], each MR should ideally be regular, sincere in claims, provide concise detailing, and demonstrate good education, strong product knowledge, courtesy, personality, and effective salesmanship. According to the author, doctors felt that MR strongly influenced their prescribing decisions. However, the study also highlights the increasing dissatisfaction among doctors with medical representatives. To address this, experts suggest using a personalized communication strategy based on doctors' experience levels to build their loyalty [27]. Also, the main role of medical representatives is to provide doctors with information about drugs to help them make informed decisions. While they are expected to support physicians in choosing the most appropriate medications, they often emphasize the benefits of the drugs and give less focus to their potential side effects. This may lead to misuse and abuse of drugs [28].

A primary reason physicians meet with MRs is to obtain free samples. The incentives provided by MRs have rapidly strengthened the sales of pharmaceutical companies [13]. Providing samples is closely connected to visits from medical representatives. These visits encourage doctors to try new medications, while samples help maintain ongoing prescriptions. Generally, only the most profitable drugs are provided as samples [16]. Promotional strategies, combined with frequent visits by medical representatives to doctors, positively influence their prescribing behaviour [38]. This incentive ranges from small-value gifts to high-value gifts. The study of [17] believes that many physicians view free samples positively, often stocking them to provide to patients who cannot afford to pay for medicine. The doctors stated that samples, rather than medical

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue XII December 2024



literature, were more beneficial [10]. To achieve sales targets, MR adopts various promotional strategies, including the distribution of drug samples featuring the names of targeted drugs. These efforts are intended to subtly embed the names of these drugs in the prescribers' subconscious, potentially influencing their prescribing decisions [17]. According to reference [22] doctors identified visits from medical representatives and the provision of drug samples as the most effective motivational tools. The results indicated that the majority of physicians utilize free samples to treat their patients [6].

Doctor's use of drug samples has been debated [4]. A study by [16] challenges earlier findings by showing that patients with financial difficulties are the least likely to receive medication samples. Pharmaceutical marketers often promote samples as a low-risk approach to address diagnostic uncertainty, but there is no evidence supporting their role in aiding diagnosis. Instead, the study concludes that providing samples is not a charitable activity but an effective marketing strategy for pharmaceutical companies. Samples are seen as an easy way to handle diagnostic uncertainty because they can reduce physician anxiety and create reliance on sample supplies. However, there is no proof that they help with diagnosis [4].

Reference [17] states that gift-giving creates a sense of obligation in many health professionals, leading them to accept visits from medical representatives and be receptive to their messages. Moreover, according to the author, doctors often mistakenly believe they are unaffected by promotion indicating that they might have limited training in distinguishing ethical from unethical promotional practices. Likewise, according to the study by [39], eighty-three per cent of MRs considered personal gifts as a means to encourage product prescriptions by doctors, while only seventeen per cent did not view personal gifts as important for generating prescriptions. A study conducted by [22] on Lebanese physicians showed that more physicians view accepting low-cost gifts as ethical compared to those who do not. However, only the continuous provision of such gifts during every visit by MR is viewed as unethical by the majority. The results revealed a subtle perspective among physicians regarding the ethics of accepting promotional gifts from medical representatives. A significant proportion, of the doctors perceived the acceptance of low-cost gifts as an acceptable and ethical practice, suggesting that such items are often viewed as minor incentives that do not compromise their professional judgment. However, when these gifts are provided consistently during every visit by medical representatives, a notable majority of physicians regarded this practice as unethical. This indicates a concern that the repetitive nature of gift-giving could create undue influence or a sense of obligation, potentially compromising the impartiality of their prescribing decisions. Moreover, the study of [15] revealed that when physicians receive information and knowledge about new drugs from medical representatives, particularly when accompanied by tangible incentives, they develop more favourable attitudes toward the MRs and the medications they promote, which, in turn, influences their prescribing behaviour. Likewise, doctors considered low-value promotional items provided by pharmaceutical companies to be highly influential in their decisions to switch from prescribing one medication to an alternative [3].

CONCLUSION AND FUTURE RECOMMENDATIONS

The role of pharmaceutical marketing, particularly the efforts of medical representatives (MRs), remains pivotal in influencing physicians' prescribing behaviour. The evidence highlights that marketing strategies such as personal visits by MRs, distribution of drug samples, sponsorships, and promotional gifts are highly effective in shaping doctors' decisions. MRs serve as essential links between pharmaceutical companies and healthcare professionals, ensuring the delivery of targeted promotional messages and fostering long-term relationships. However, concerns about ethical boundaries and the potential bias introduced by marketing efforts underline the need for balanced and transparent interactions.

The studies reviewed demonstrate that:

1. **Influence of Promotional Strategies**: Marketing efforts, including MR visits, drug samples, and sponsorships, significantly impact prescribing behaviour. While these efforts are effective in driving sales, they also raise ethical questions about undue influence.

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue XII December 2024



- 2. **Role of Drug Attributes**: Although promotional strategies are influential, drug-related factors such as efficacy and safety remain critical determinants in prescribing decisions.
- 3. **Ethical Concerns**: Physicians often acknowledge the influence of low-cost gifts and samples but express concerns when such practices are persistent and create a sense of obligation.
- 4. **Regional Variability**: The influence of marketing efforts varies across countries and healthcare settings, with developing regions often relying more heavily on MRs as primary sources of information.

Future Recommendations:

- 1. **Strengthen Ethical Guidelines**: Pharmaceutical companies and healthcare institutions should collaborate to reinforce ethical standards in marketing practices. Continuous medical education (CME) programs should focus on training physicians to identify and manage potential biases.
- 2. **Focus on Value-Based Promotion**: Companies should emphasize the value of their products through evidence-based marketing, prioritizing transparency and comprehensive drug information over material incentives.
- 3. **Leverage Digital Marketing**: With advancements in technology, pharmaceutical companies should integrate digital tools, such as e-detailing and virtual conferences, to provide accessible and unbiased information to healthcare professionals.
- 4. **Monitor and Evaluate Impact**: Regulatory bodies should monitor promotional activities and their effects on prescribing patterns to ensure they align with ethical practices and benefit patient care.
- 5. **Customized Approaches**: Tailor marketing strategies based on regional needs and physicians' experience levels to build trust and loyalty while maintaining professional integrity.
- 6. **Empower MRs with Knowledge**: Continuous training for MRs is essential to ensure their messaging is precise, evidence-based, and focused on the therapeutic benefits of the products rather than solely on promotional incentives.

By adopting these recommendations, the pharmaceutical industry can balance the need for effective marketing with ethical practices, fostering trust among healthcare professionals while ensuring optimal patient care.

REFERENCES

- 1. Acharya, A., & Pant, S. K. (2022). A Review Of Factors Influencing Physician's Prescribing Behaviour. *Webology*, 19(3), 3199–3209.
- 2. Agrawal, Y., & Mandhanya B. (2021). Promotional Strategies for Indian Pharmaceutical Companies in the Era of Digital Marketing Babita Agrawal Yogita Mandhanya. *Global Management Review*, 15(2). http://www.pbr.co.in/2019/2019 month/December/8.pdf
- 3. Ahmed, R. R., Streimikiene, D., Abrhám, J., Streimikis, J., & Vveinhardt, J. (2020). Social and behavioural theories and physician's prescription behaviour. *Sustainability (Switzerland)*, *12*(8), 1–25. https://doi.org/10.3390/SU12083379
- 4. Al-Areefi, M. A., Ibrahim, M. I. M., & Alfadl, A. A. (2024). The Role of Pharmaceutical Marketing in Prescribing Decisions in a Developing Country: a Comprehensive Study Exploiting Theory of Planned Behaviour. *Journal of Public Health and Pharmacy*, 4(3), 318–328. https://doi.org/10.56338/jphp.v4i3.5860
- 5. Alagha, E. C., & Fugh-Berman, A. (2022). Pharmaceutical marketing: the example of drug samples. *Journal of Pharmaceutical Policy and Practice*, 15(1), 1–6. https://doi.org/10.1186/s40545-022-00479-z
- 6. Albarq, A. N., & Suleiman, A. k. (2021). Pharmaceutical marketing strategies' influence on physician's prescription behaviour. *Archives Of Pharmacy Practice*, 12(1), 7–12. https://doi.org/10.51847/z1e2zxy21k
- 7. Ali, K. E., Naser, A. Y., Al-Rousan, R., Alwafi, H., AbuAlhommos, A. K., Alsairafi, Z. K., Salawati, E. M., Samannodi, M., & Dairi, M. S. (2022). The attitude and acceptability towards medical

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue XII December 2024



- promotional tools and their influence on physicians' prescribing practices in Jordan and Iraq: a cross-sectional study. *BMC Health Services Research*, 22(1), 1–10. https://doi.org/10.1186/s12913-022-07525-1
- 8. Alowi, M., & Kani, Y. (2019). Promotion of Prescription Drugs and Its Impact on Physician's Choice Behavior. *Journal of Pharmaceutical Care & Health Systems*, 06(01). https://doi.org/10.4172/2376-0419.1000200
- 9. Altawalbeh, S. M., Ibrahim, I. A., & Al-Shatnawi, S. F. (2020). Influence of pharmaceutical promotion on prescribers in Jordan. *International Journal of Clinical Pharmacy*, 42(2), 744–755. https://doi.org/10.1007/s11096-020-01006-3
- 10. Atia, A., Gismallah, M., & Almogadmi, E. (2022). Influence of Medical Representatives on Prescribing Practices in Tripoli. *Journal of Advanced Pharmacy Research*, 6(1), 28–33. https://doi.org/10.21608/aprh.2021.95357.1140
- 11. Ben Said, Y., Bragazzi, N. L., & Pyatigorskaya, N. V. (2019). Influence of Sales Promotion Techniques on Consumers' Purchasing Decisions at Community Pharmacies. *Pharmacy*, 7(4), 150. https://doi.org/10.3390/pharmacy7040150
- 12. Chiplunkar, S., Gowda, D., & Shivakumar, H. (2020). Adaptation of Pharmaceutical Marketing and Drug Promotion Practices in Times of Pandemic COVID-19. *International Journal of Health & Allied Sciences*, 9, 11-17.
- 13. Ben Said, Y., Bragazzi, N. L., & Pyatigorskaya, N. V. (2019). Influence of Sales Promotion Techniques on Consumers' Purchasing Decisions at Community Pharmacies. *Pharmacy*, 7(4), 150. https://doi.org/10.3390/pharmacy7040150
- 14. Chugh, P. (2022). *Paradigm Shift in Marketing and Finance Edited by Bharti Publications* (Issue May). https://www.researchgate.net/profile/Priya-Chugh-4/publication/360454431_Paradigm_Shift_in_Marketing_and_Finance/links/6277806a973bbb29cc6 bd2c7/Paradigm-Shift-in-Marketing-and-Finance.pdf#page=22
- 15. Currie, J. M., & MacLeod, W. B. (2020). Understanding Doctor Decision Making: The Case of Depression Treatment. *Econometrica*, 88(3), 847–878. https://doi.org/10.3982/ecta16591
- 16. Dahal, A. R. (2020). Talk Big, take small and progressive steps. Are we ready to do, what we are supposed to ? 11, 5–6.
- 17. Ekiyor, A., & Altan, F. (2020). Marketing Communication and Promotion in Health Services. *Promotion and Marketing Communications*, 1–21. https://doi.org/10.5772/intechopen.91656
- 18. Faculty-HR. (2021). Promotional Strategies for Indian Pharmaceutical Companies in the Era of Digital Marketing Babita Agrawal Yogita Mandhanya. *Global Management Review*, *15*(2), 81–85. http://www.pbr.co.in/2019/2019_month/December/8.pdf
- 19. Faisal, A., Ahmad, M. S., Thurasamy, R., & Ahmed, R. (2020). Doctors' Interactions with Pharmaceutical Sales Representatives: Modelling Doctors Prescription Behaviour. *Community Mental Health Journal*, *56*(3), 456–463. https://doi.org/10.1007/s10597-019-00501-w
- 20. González Peña, O. I., López Zavala, M. Á., & Cabral Ruelas, H. (2021). Pharmaceuticals market, consumption trends and disease incidence are not driving the pharmaceutical research on water and wastewater. *International Journal of Environmental Research and Public Health*, *18*(5), 1–37. https://doi.org/10.3390/ijerph18052532
- 21. Gul, R., Saeed, H., Saleem, Z., Rasool, F., Hashmi, F. K., Islam, M., Imran, I., Raza, S. A., & Danish, Z. (2021). Perceptions of and barriers to the ethical promotion of pharmaceuticals in Pakistan: perspectives of medical representatives and doctors. *BMC Medical Ethics*, 22(1), 1–16. https://doi.org/10.1186/s12910-020-00569-0
- 22. Hailu, A. D., Workneh, B. D., & Kahissay, M. H. (2021). Influence of pharmaceutical marketing mix strategies on physicians' prescribing behaviours in public and private hospitals, Dessie, Ethiopia: a mixed study design. *BMC Public Health*, 21(1), 1–15. https://doi.org/10.1186/s12889-020-10063-2
- 23. Ilyas, Z., & Siddiqi, M. A. (2022). Do Demographic Factors Influence Physicians' Perceptions of the Effectiveness of Pharmaceutical Marketing Strategies? *Asian Journal of Economics, Business and Accounting*, 22(23), 314–325. https://doi.org/10.9734/ajeba/2022/v22i23876

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue XII December 2024



- 24. Jha, N., Sapkota, Y., & Shankar, P. R. (2020). Critical evaluation of drug advertisements in a medical college in Lalitpur, Nepal. *Journal of Multidisciplinary Healthcare*, 13, 717–725. https://doi.org/10.2147/JMDH.S259708
- 25. Kaczmarek, E. (2022). Promoting diseases to promote drugs: The role of the pharmaceutical industry in fostering good and bad medicalization. *British Journal of Clinical Pharmacology*, 88(1), 34–39. https://doi.org/10.1111/bcp.14835
- 26. Khazzaka, M. (2019). Pharmaceutical marketing strategies' influence on physicians' prescribing pattern in Lebanon: Ethics, gifts, and samples. *BMC Health Services Research*, 19(1), 1–11. https://doi.org/10.1186/s12913-019-3887-6
- 27. Kristi L. Stringer, Bulent Turan, Lisa McCormick, Modupeoluwa Durojaiye, Laura Nyblade, Mirjam-Colette Kempf, Bronwen Lichtenstein, and J. M. T. (2017). 乳鼠心肌提取 HHS Public Access. *Physiology & Behavior*, *176*(3), 139–148. https://doi.org/10.1002/hep.30150.Ductular
- 28. Krunal, V. S. S. K. M. I. (2020). Impact Study of Various Pharmaceutical Promotional Practices on Indian Doctor 'S Prescription Behavior. *European Journal of Molecular & Clinical Medicine*, 7(8), 4198–4208. https://ejmcm.com/article_6805.html
- 29. Leonardo Alves, T., Lexchin, J., & Mintzes, B. (2019). Medicines Information and the Regulation of the Promotion of Pharmaceuticals. *Science and Engineering Ethics*, 25(4), 1167–1192. https://doi.org/10.1007/s11948-018-0041-5
- 30. Ligade, V., & Bhegade, J. (2020). Evaluating pharmaceutical marketing knowledge and attitude among medical representative in Mumbai city: A quantitative study. *Journal of Applied Pharmaceutical Science*, 10(1), 83–87. https://doi.org/10.7324/JAPS.2020.101011
- 31. Lobuteva, L. A., Lobuteva, A. V., Zakharova, O. V., Krivosheev, S. A., & Kartashova, O. V. (2019). Instruments to form doctors' loyalty to visits of medical representatives. *Journal of Advanced Pharmacy Education and Research*, 9(3), 68–75.
- 32. Malik, F., Khan, S., Hakeem, L., & Sharif, I. (2021). How Pharmaceutical Marketing Manipulates the Prescription Pattern of Physicians? A Grounded Theory Study. *International Journal of Innovation, Creativity and Change.*, 15(5), 735–753.
- 33. Mintzes, B., Fabbri, A., Grundy, Q., Gkp, S., Lexchin, J., Je, M., & Bero, L. (2020). *companies for clinicians (Protocol)*. https://doi.org/10.1002/14651858.CD013423.pub2.www.cochranelibrary.com
- 34. N. Albarq, A., K. Suleiman, A. Pharmaceutical marketing strategies' influence on physician's prescription behaviour. *Arch Pharma Pract* 2021;12(1):7-12
- 35. Napit, P. R. (2018). Promotional Efforts of Pharmaceutical Industries on Prescribing Pattern of Antibiotics among Medical Doctors in Nepal. *Journal of Business and Social Sciences Research*, 1(2), 201. https://doi.org/10.3126/jbssr.v1i2.20925
- 36. Narayan, M., Mohanty, B., & Kumar, M. (2020). Examining the effect of marketing promotional strategies of pharmaceutical companies on doctors' prescription behaviour. *Research Journal of Pharmacy and Technology*, *13*(10), 4888–4894. https://doi.org/10.5958/0974-360X.2020.00860.4
- 37. Neupane, A., Bastakoti, M., Tamang, S., & Giri, B. (2021). Incidences of poor-quality pharmaceutical products in Nepal. *MedRxiv*, 2021.04.15.21255541. https://doi.org/10.1101/2021.04.15.21255541
- 38. Ogunleye, O. O., Fadare, J. O., Yinka-Ogunleye, A. F., Anand Paramadhas, B. D., & Godman, B. (2019). Determinants of antibiotic prescribing among doctors in a Nigerian urban tertiary hospital. *Hospital Practice*, 47(1), 53–58. https://doi.org/10.1080/21548331.2018.1475997
- 39. Ortiz SE, Rosenthal MB. Medical Marketing, Trust, and the Patient-Physician Relationship. *JAMA*. 2019;321(1):40–41. doi:10.1001/jama.2018.19324
- 40. Parmata, U. M. D., & Chetla, S. P. (2020). Effect of service quality on doctor's satisfaction and prescribing behaviour in the pharmaceutical supply chain a study concerning a major Indian pharmaceutical company. *International Journal of Pharmaceutical and Healthcare Marketing*, 15(2), 173–211. https://doi.org/10.1108/IJPHM-04-2018-0024
- 41. Price, S. M., O'Donoghue, A. C., Rizzo, L., Sapru, S., & Aikin, K. J. (2021). What influences healthcare providers' prescribing decisions? Results from a national survey. *Research in Social and Administrative Pharmacy*, 17(10), 1770–1779. https://doi.org/10.1016/j.sapharm.2021.01.012

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue XII December 2024



- 42. Rose, S. L., Sah, S., Dweik, R., Schmidt, C., Mercer, M. B., Mitchum, A., Kattan, M., Karafa, M., & Robertson, C. (2021). Patient responses to physician disclosures of industry conflicts of interest: A randomized field experiment. *Organizational Behavior and Human Decision Processes*, *166*(May 2018), 27–38. https://doi.org/10.1016/j.obhdp.2019.03.005
- 43. Ruffino, C. 2023, September 2). *Transforming Pharmaceutical Commercial Operations: A Comprehensive Guide*. https://exeevo.com/resources/publications/blog/pharmaceutical-commercial-operations/
- 44. Shrestha, R., & Prajapati, S. (2019). Assessment of prescription pattern and prescription error in the outpatient Department at Tertiary Care District Hospital, Central Nepal. *Journal of Pharmaceutical Policy and Practice*, *12*(1), 1–9. https://doi.org/10.1186/s40545-019-0177-y
- 45. Srivastava, R., Mishra, V. P., & Pradesh, U. (2022). Exploring the role of pharmaceutical marketing on doctors' prescribing behaviour towards branded medicines: A critical review and future research orientation Corresponding author: Rahul Srivastava, 14(02), 6139–6151. https://doi.org/10.9756/INT-JECSE/V14I2.701
- 46. Tariq Mehmood Dar, by. (2020). Effectiveness of promotional tools used by medical representatives to generate product prescriptions from doctors concerning Pakistan's Pharmaceutical Industry. *Electronic Research Journal of Social Sciences and Humanities*, 2(December). www.eresearchjournal.com